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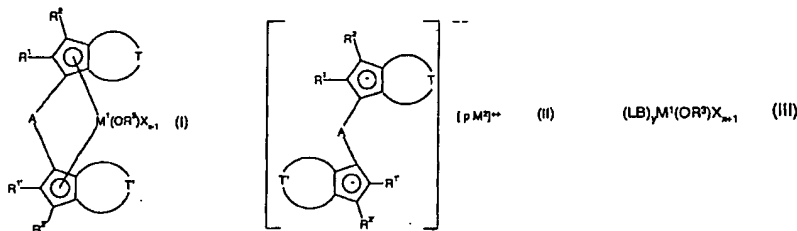
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(54) Title: MESO-SELECTIVE SYNTHESIS OF ANSA-METALLOCENES



(57) Abstract: The present invention relates to a process for the meso-selective preparation of ansa-metallocene complexes of the formula (I), which comprises reacting a ligand starting compound of the formula (II) with a transition metal compound of the formula III, where R¹, R¹ are identical or different and are each hydrogen or an organic radical having from 1 to 40 carbon atoms, R², R² are identical or different and are each hydrogen or an organic radical having from 1 to 40 carbon atoms, R³ is a bulky organic radical which has at least 3 carbon atoms, is bound to the oxygen atom via a nonaromatic carbon or silicon atom and may be substituted by halogen atoms or further organic radicals having from 1 to 20 carbon atoms and may also contain heteroatoms selected from the group consisting of Si, N, P, O and S, T, T' are identical or different and are each a divalent organic group which has from 1 to 40 carbon atoms and together with the cyclopentadienyl ring forms at least one further saturated or unsaturated, substituted or unsubstituted ring system having a ring size of from 5 to 12 atoms, where T and T' may contain the heteroatoms Si, Ge, N, P, As, Sb, O, S, Se or Te within the ring system fused to the cyclopentadienyl ring, A is a bridge consisting of a divalent atom or a divalent group, M¹ is an element of group 3, 4, 5 or 6 of the Periodic Table of the Elements or the lanthanides, the radicals X are identical or different and are each an organic or inorganic radical which is able to be replaced by a cyclopentadienyl anion, x is a natural number from 1 to 4, M² is an alkali metal, an alkaline earth metal or a magnesium monohalide fragment, p is 1 in the case of doubly positively charged metal ions or 2 in the case of singly positively charged metal ions or metal ion fragments, LB is an uncharged Lewis base ligand, and y is a natural number from 0 to 6, and also the subsequent reaction of these complexes to form ansa-metallocenes of the formula (IV), the use of transition metal compounds of the formula (III) for preparing metallocenes and also transition metal compounds of the formula (III), ansa-metallocene complexes of the formula (I) and the use of these as constituents of catalyst systems for the polymerization of olefines.



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